

REMARKS

This Amendment is submitted in response to the non-final Office Action mailed on April 13, 2004. Claims 2-19, 25-27 and 29-34 are pending, claims 2-19 and 29-34 have been amended, claims 25-27 have been cancelled, and claims 35-48 are new. In view of the foregoing amendments, as well as the following remarks, Applicant respectfully submits that this application is in complete condition for allowance and requests reconsideration of the application in this regard.

Personal Interview

Applicant's undersigned representative expresses gratitude to the Examiner for the courtesy of an interview by telephone on July 2, 2004. During the interview, the differences between the subject matter of the application and the disclosure of the applied references were discussed. The Examiner and Applicant's undersigned representative also discussed proposed claim language for overcoming the rejections.

Information Disclosure Statement

The Examiner did not consider a reference, EP 706,825, for failure to provide a copy for consideration. A copy of this reference was submitted by the Applicant on a Form 1449 in an Information Disclosure Statement bearing a certificate of mailing date of April 19, 2002. As discussed during the telephone interview, the Examiner has located the submitted copy and will consider this reference in the subsequent Office Action. Applicant also provided a copy of a European Search Report from a corresponding European Patent Application along with the

Information Disclosure Statement of April 19, 2002. The references submitted in this Information Disclosure Statement and their relevance were cited in the European Search Report.

Rejections under 35 U.S.C. § 103(a)

Claims 2-19, 25-27 and 29-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,777,303 (Berney), WO 89/08264, WO 96/08433, or WO 99/03585 (collectively the Primary References) in view of U.S. Patent No. 5,405,510 (Betts et al.). The Examiner concedes that none of the Primary References discloses the use of an optically readable code in a sample tube assembly. The Examiner contends that it would have been obvious to modify any one of the Primary References by substituting the optically readable code of Betts et al. for the electronic transponder of any one of the Primary References.

Applicant traverses the Examiner's contention for the reasons set forth below.

Applicant's claim 2 recites "a tube portion having a bottom, an end cap mounted to the bottom of the tube portion and providing a substantially fluid-tight seal therewith, a label chamber defined by a substantially fluid-tight space between the bottom of the tube portion and the end cap, and a label having an optically readable code and encapsulated inside the label chamber." The "end cap includes a region over the label that is sufficiently transparent for the optically readable code to be read through the end cap region from below the bottom of the tube portion."

The Examiner does not provide a sufficient motivation or suggestion to combine Betts et al. with one of the Primary References. Specifically, each of the Primary References discloses an electronic transponder that is read by magnetic or inductive coupling. However,

one of the Primary References discloses that a region of an end cap over the electronic transponder is transparent to a degree sufficient for an optically readable code to be read through the end cap region. Hence, the Primary References do not recognize the need to transmit light through a region of an end cap to read a label.

Because an electronic transponder is more rugged and liquid-resistant than a label, encapsulation in a substantially liquid-tight chamber is not necessary to protect the transponder. Applicants believe that WO 96/08433 and Berney do not disclose encapsulating the electronic transponder at all. Simply substituting a label having an optically readable code for the electronic transponder shown in WO 96/08433 and Berney would expose the label to liquids in the environment surrounding the sample tube assembly. This liquid exposure would potentially degrade the quality of an optically readable code carried by the label.

WO 89/0824 and WO 99/03585 arguably disclose an electronic transponder positioned in a space between an end cap and the bottom of the tube portion. An electronic transponder is read inductively with a magnetic field or by electronic interrogation using radio frequency radiation or the like. Magnetic fields, radio frequency radiation and similar types of radiation can penetrate through opaque or highly translucent material. Therefore, the end cap in WO 89/0824 and WO 99/03585, assuming that the material of the end cap covers the electronic transponder, is not required to include a region sufficiently transparent to transmit light for reading the electronic transponder.

Betts et al. discloses an optically readable label (21) attached conventionally (e.g., adhesively bonded) to the exterior of a cartridge (11) in an uncovered and non-protected fashion. However, Betts et al. does not provide disclosure sufficient to correct this deficiency of the

Primary References as the label (21) is not read by transmitting light through the material forming cartridge (11). The Examiner asserts that Betts et al. teaches “the equivalence of an optically readable label and other labels, such as electronic labels.” The Examiner’s assertion of equivalency may apply to an object used in an environment in which liquids are not routinely poured into an open cavity of the object, as is true of sample tubes. In Betts et al., the cartridge (11) includes a Leur fitting on inlet (14B) and a check valve. *See* Betts et al. at column 7, lines 34-41. Therefore, the exterior surface of the cartridge (11) in Betts et al. is not susceptible to wetting under normal use. In contrast, liquid samples and test solutions are poured from other containers into the fluid-receiving cavity of the sample tubes disclosed in the Primary References. Such pouring is inherently prone to spillage, which wets the exterior of the sample tubes. Sample tubes, as disclosed in the Primary References, lack Leur fittings and check valves on the fluid-receiving cavity, as disclosed in Betts et al. Therefore, the interchangeability of electronic labels and optically readable labels allegedly taught by Betts et al. does not apply to sample tubes.

Because of the absence of a proper motivation to combine one of the Primary References with Betts et al., the Examiner has failed to establish *prima facie* obviousness. For at least this reason, Applicant submits that claim 2 is allowable and requests that the rejection of claim 2 be withdrawn.

Assuming, *arguendo*, that one of the Primary References were combined with Betts et al. in the manner suggested by the Examiner, the resulting sample tube assembly would not include all the elements of claim 2. Specifically, the Primary References and Betts et al. do not disclose an end cap with a region over the label that is sufficiently transparent for an optically

readable code to be read through the end cap region. Thus, even if the references were combined as suggested by the Examiner, the resultant sample tube assembly would not include every element of claim 2. For at least this additional reason, Applicant submits that claim 2 is patentable and requests that the rejection be withdrawn.

Because claims 3-19 and 29-34 depend either directly or indirectly from independent claim 2, Applicant submits that those claims are also patentable for at least the same reasons discussed above. Furthermore, these claims recite unique combinations of elements not taught, disclosed or suggested by the references of record.

Claims 35-48 are submitted as new claims and are patentable for at least the same or similar reasons as claim 2, as discussed above. Furthermore, each of the new claims recites a unique combination of elements not taught, disclosed or suggested by the references of record.

CONCLUSION

Applicant has made a bona fide effort to respond to each and every requirement set forth in the Office Action. In view of the foregoing amendments and remarks, this application is submitted to be in complete condition for allowance and, accordingly, a timely notice of allowance to this effect is earnestly solicited. In the event that any issues remain outstanding, the Examiner is invited to contact the undersigned to expedite issuance of this application.

Applicant does not believe fees are dues in connection with filing this communication other than the excess claim fees and the one month extension fee. If, however, additional fees are necessary as a result of this communication, the Commissioner is hereby

authorized to charge any under-payment or fees associated with this communication or credit any over-payment to Deposit Account No. 23-3000.

Respectfully submitted,

WOOD, HERRON & EVANS L.L.P.

A handwritten signature in cursive script, reading "William R. Allen", is written over a horizontal line.

William R. Allen

Reg. No. 48,389

2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202
(513) 241-2324